Minutes for the Air Quality Management Plan Advisory Group Meeting
Wednesday, January 22, 2003
1:00 pm – 3:30 pm

1. Welcome and Introductions

Dr. Elaine Chang, Deputy Executive Officer, Planning, Rules and Area Sources, called the meeting to order at 1:10 p.m.

2. Status of AQMP Revision

Dr. Laki Tisopulos, Assistant Deputy Executive Officer, opened the discussion on the status of AQMP Revision. He informed the participants that the preview document to the 2003 AQMP was recently released. Presentation on the preview document, modeling efforts, and the state and federal element of the 2003 AQMP followed.

2a. Preview Document Summary Presentation

Mr. Zorik Pirveysian, Planning and Rules Manager, gave a presentation on the recently released Preview of the 2003 Air Quality Management Plan. Mr. Pirveysian's summary included the following: purpose and elements of the preview document, current air quality, emissions inventory, technical improvements in the 2003 AQMP, attainment demonstration approach, control strategy, key issues, and schedule. (Meeting handouts available upon request.)

Questions and Responses

- *What are the new air quality standards and what are their attainment dates?*
  The U.S. Environmental Protection Agency (EPA) has promulgated an 8-hour ozone standard (0.08 parts per million [ppm]) with an expected compliance date of 2021. EPA has also promulgated annual and 24-hour PM2.5 standards (65 and 15 micrograms per cubic meter, respectively) that have an expected compliance date of 2014. These are in addition to the existing 1-hour ozone standard (0.12 ppm) and PM10 standards. The compliance dates of the existing ozone and PM10 standards are 2010 and 2006, respectively.
- *What is the concept of "carrying capacity"?*
  Relative to air quality planning, carrying capacity refers to the amount of pollutants remaining in the atmosphere whereby an attainment demonstration can still be made.
- *How does the easing of the California Air Resources Board (CARB) zero emission vehicle (ZEV) requirements affect the attainment demonstration?*
  The intent of the ZEV program is to foster technological advancement. The contribution of the ZEV program's emission reductions to the 2010 inventory is relatively small; the program is most important for promoting new technology and long-term air quality maintenance.
- *How is the control strategy and specific emission reduction quantities decided among the responsible agencies?*

Each agency develops a control strategy of the maximum reductions possible based on known technologies relative to sources under each of agency's respective jurisdiction. To ensure a fair-share of the emission reduction responsibility, the amount of reduction remaining to achieve attainment is divided among the agencies based on the jurisdiction of each agency. In the case of the 2003 AQMP, the agencies are still discussing how to specifically divide up responsibility for the remaining emission reductions.

- *Does the control strategy account for cost?*
  Cost is taken into account to a certain extent, though there is no specific cost threshold. If the cost of a control measure is reasonable, it is included in the Plan. Those controls that are relatively expensive may be placed in the long-term category of the control strategy.

- *The cost of the control strategy should be explicitly stated since Congress is presented with a certain cost estimate when deciding whether to promulgate new or modified standards (e.g. $10,000 per ton for the new PM2.5 standard).*
  The costs associated with each AQMP control measure are explicitly quantified wherever possible and included as part of a comprehensive cost analysis of the entire control strategy which is made available for public review and to decision-makers prior to the public hearing on the AQMP. It should be noted that the costs analysis performed for control measure development is different than that for rule development. The development of a rule allows for a more refined cost analysis, and the actual costs of implementing a rule is often less than that estimated for the associated control measure. In AQMD's experience, the cost-effectiveness of most rules is less than $10,000 per ton. It should be further noted that if the cost-effectiveness of a proposed rule exceeds the $13,500 per ton threshold for VOC rules, the AQMD Board requires a pre-hearing which would include a more rigorous cost-effectiveness of socioeconomic impact analysis for the proposed rule.

- *Has the staff looked at the impact of the state budget on the ability to implement the control strategy (i.e., strategies that involve the use of public monies/investments)?*
  The control strategy was developed independent of the state budget. The comment is noted and will be considered as appropriate.

- *Will the work done to choose the air quality model and chemical module for the attainment demonstration be made available?*
  Chapter V and Appendix V of the draft 2003 AQMP will discuss the air quality computer modeling performed for the attainment demonstration. It is envisioned that a technical report will also be included as part of the 2003 AQMP that includes information from the peer review recently performed relative to the air quality modeling as well as other pertinent information.

2b. Summary of the Air Quality Modeling Performed for the 2003 AQMP Attainment Demonstration

Mr. Joe Cassmassi, Senior Meteorologist, gave a presentation on the air quality computer modeling efforts for the 2003 AQMP. Mr. Cassmassi provided a summary of the preliminary results of staff's investigations of the different models and chemistry modules being tested for use in the 2003 AQMP.

Questions and Responses

- *Why is there a 100 ton difference between the attainment demonstrations in the 1997 AQMP and the draft 2003 AQMP?*
  The ozone episode being used for the 2003 AQMP (i.e., the 1997 episode) is more restrictive than that used in the 1997 AQMP (i.e., the 1987 episode). The preliminary carrying capacity in the draft 2003 AQMP is consistent with that in the 1994 AQMP.
- *Do the results from all three models indicate a 100 ton shortfall?*
  As the modeling is being refined, the results form all three models are converging such that the emission reduction shortfall from each is of the same magnitude.
- *Have you made a decision to use the 1997 episode rather than the 1998 episode?*
  The 1998 is an extremely unusual episode (99^{th} percentile); it was the worst day since the implementation of CARB Phase II reformulated gasoline. The likelihood of it occurring is approximately once every four years. Since the ozone standard allows one exceedance every three years, it can by definition be eliminated. Staff recommends using the 1997 episode for the 2003 AQMP. It should be noted that we used the 1987 episode for the 1997 AQMP rather than the 1995 episode for same reasons.
- *What is the practical aspect of choosing one model over another?*
  The model selected must reflect the best science, most specific performance criteria and predict ambient concentration with reasonable accuracy. Further, the emission reductions needed to achieve attainment may differ slightly, requiring either greater or fewer control measures.
- *Has the NOx carrying capacity changed from the 1997/1999 Plan?*
  At this point no - it is still approximately 540 tons per day.
- *Is there any correlation between global warming and smog control?*
  While smog control would help reduce global warming, the amount of control at a District level is insignificant to the problem.
- *The sooner the redesignation for CO the better, since large sources may trigger offset requirements even though emissions would have no effect on CO attainment.*
  We concur with the recommendation, however, we have to be certain that there is no CO exceedance this year before requesting a designation of "attainment".
- *You might want to consider looking at relief from the CO offset requirement where it can be clearly established through modeling that a source would have no impact on CO ambient concentrations.*
  We will take this suggestion into consideration.

- *Have you considered weekday versus weekend emissions as part of the modeling effort?*

  We will put weekend emissions into the selected model using the August episode to simulate the "weekend effect". It should be pointed out that though the weekend effect is in the air quality distribution, some of the peak concentrations seen in the last couple of years occurred on weekdays as well, so the weekend effect is not so clear cut.

- *Since a relative reduction correction was used previously when the model over-predicted the ozone peak, it should be used for the current attainment demonstration to account for the model's inaccuracies in under-predicting the peak.*
  Comment noted. We will wait until we have gone through the peer review before specifically answering technical questions such as this.

- *Based on the uncertainties associated with the modeling, is your schedule to release the draft AQMP in early February realistic?*
  We have been running all three models concurrently and are not starting from scratch. We feel that we will have the draft AQMP released in the timeframe indicated, with the possible exception of the modeling appendix (Appendix V). We do not expect a significant delay.

2c. Presentation on the State and Federal Element of the 2003 AQMP

Ms. Cynthia Marvin, Chief, Air Quality and Transportation Planning Branch, California Air Resources Board, presented a summary of the State and Federal Element of the 2003 AQMP. Part of the discussion explained the challenges of developing the 2003 AQMP. The two most important challenges are that, relative to the 1997 AQMP, improved emission factors reveal that there are more mobile source emissions in the system and improved air quality modeling reveals that the carrying capacity is smaller.

In response to questions raised during the previous presentations, Ms. Marvin indicated that CARB's control strategy was developed independent of and parallel to a carrying capacity determination. The control strategy was developed through a rigorous evaluation of state and federal sources viewed from a feasibility, technological, and cost standpoint of what could be done between today and 2010. Ms. Marvin also indicated that vehicles 12 years and older account for 80+% of the on-road mobile source emission inventory yet represent only 25% of the miles traveled. Thus the control strategy must seek to cleanup vehicles already on the road (i.e., upgrading emission controls on existing vehicles as well as replacing such vehicles with newer models.) The inherent difficulty of this strategy is the social implication of a strategy targeting the means of transportation of lower income people.

Ms. Marvin made the point that the responsible agencies, the AQMP Advisory Group, and other interested parties must collectively figure out how to get past traditional obstacles relative to cost-effective and socially acceptable emission reductions and set forth a control strategy that achieves attainment. (Meeting handouts available upon request.)

Questions and Responses

- *Where are we at in terms of number of days of violation compared to where we predicted we would be?*
  The 1997 AQMP's modeling estimate of years 2002-2003 is on the mark. Also, trend-wise we are in good shape; concentrations are decreasing - possibly even faster - than what the models had predicted.
- *Why didn't the previous EMFAC properly identify the mobile source inventory?*
  The method of testing vehicle emissions needed to be refined. CARB does not measure every vehicle in every type of actual use. Vehicles are run through specific test cycles for certification and which is supplemented by smog check to see what is happening in use. All these efforts, however, take only a very small subset of vehicles and extrapolate the results to the fleet. There are also questions of what is known about the fleet – how long vehicles are assumed to be out there and how many miles they are driving. CARB has fundamentally improved all such information. The higher ROG emission in 1990 are due to underestimating emission per vehicle, the number of older vehicles and the miles they are being driven, and the evaporated emissions. It should be noted that CARB has developed controls for the evaporated emissions such that we see a dramatic decline from this source.
- *Is VMT going up?*
  Yes, but at a slightly slower rate than what was projected in the last SIP.
- *Have you considered a heavy-duty truck smog test?*
  There are many practical considerations that make a mandatory smog test for all heavy duty trucks extremely difficult. However, CARB is expanding its roadside smoke inspection program. In addition, there are new requirements for engine manufacturers to ensure standards are achieved and maintained for a longer period of time.
- *How come the contribution of mobile source emissions in 2010 decreases in the 2003 SIP relative to the 1997 SIP?*
  The low emission vehicle (LEV) program achieved more reductions than we anticipated so the relative contribution to the mobile source inventory in 2010 is less in the 2003 SIP. The NOx inventory actually increases, however, since engines are in service longer than we predicted and emission controls deteriorate more than we projected.
- *Why do the control measures have a range of emission reductions?*
  The range represents the uncertainty of the technology and possibly also the inventory.
- *Will the range be in the final Plan and will U.S. EPA accept it?*
  The ranges will be in the Plan which is consistent with the prior SIP. Emission reduction ranges in the control measures gives the Board some room when adopting rules. CARB will commit to achieving at least the lower end of the range.
- *Do you have a strategy for reducing vehicle idling?*

There are technical and operational requirements to reduce idling in the proposed measures.

- *Can you increase the stringency of the smog test to deal with the emission associated with older vehicles?*
  Vehicle engines are required to meet certain standards when they are manufactured. We cannot now change the standards to be more restrictive than what they were designed to meet.
- *What are the public comment opportunities relative to the state and federal element?*
  CARB will participate at the AQMD workshops. Additionally, CARB will hold workshops in other areas of the state since the state and federal element applies to the entire state.
- *Mr. Jack Broadbent, Director, Air Division, Region 9, U.S. EPA, commented that the U.S. EPA holds the position that CARB/AQMD cannot assign emission reductions to the federal government. However, the U.S. EPA realizes their responsibility relative to federal sources and will work closely with the state and local districts to achieve emission reductions as appropriate.*

3. Other Issues

Dr. Tisopulos informed the participants that under the newly adopted Governing Board procedures, staff will be preparing Goals and Objective for the STMPR Advisory Group, revising the membership rosters for the AQMP and STMPR Advisory Groups, and preparing minutes of the meetings. Staff will be forwarding to the advisory group members drafts of these documents prior to the February meeting.

4. Public Comment Period

There were no public comments.

5. Adjourn

Dr. Chang adjourned the meeting at 3:30 p.m.

Attendees of the Air Quality Management Plan Advisory Group Meeting
Wednesday, January 22, 2003
1:00 pm– 3:30 pm

AQMP ADVISORY GROUP MEMBERS PRESENT

Greg Adams, Los Angeles County Sanitation Districts
Don Blose, American Lung Association
Jack Broadbent, U.S. Environmental Protection Agency
Curtis Coleman, California Manufacturers Association /So. Cal. Air Quality Alliance
Molly Hoffman, Southern California Association of Governments
Sylvia Oey, California Air Resources Board
James Ortner, Orange County Transportation Authority
Bill Quinn, California Council for Environmental and Economic Balance
Gail Ruderman-Feuer, Natural Resources Defense Council
Jeb Stuart, Construction Industry Air Quality Coalition
Carla Walecka, Realtors Committee on Air Quality
Robert Wyman, Latham & Watkins

AQMP ADVISORY GROUP MEMBERS NOT PRESENT

Detrich Allen, City of Los Angeles
Gerry Bonetto, Printing Industries of Califoria
Tim Carmichael, Coalition for Clean Air
Jot Condit, California Restaurant Association
William Craycraft, AQMD Governing Board
Bob Dulla, Sierra Research
Bob Feenstra, Milk Producers Council
Virginia Field, AQMD Board Member Assistant
Joe Garcia, Councilmember, City of Monrovia
Dr. Henry Gong Jr., Environmental Health Service, Rancho Los Amigos Medical Center
Candace Haggard, County of Orange
David Hayes-Bautista, Center for the Study of Latino Health
Dave Jesson, U.S. Environmental Agency
Bob Kanter, Port of Long Beach
Ok-Hwan Kim, Orange County Dry Cleaners Association
Diana Kotler, City of Anaheim
Ed Laird, Coatings Resource
Corky Larson, Coachella Valley Association of Governments
Steve Levy, Center for the Continuing Study of the California Economy
Bradford McAllester, Metropolitan Transportation Authority
Joseph Norbeck, Center for Environmental Research & Technology
Peter Okurowski, California Environmental Associates
Mark Pisano, Southern California Association of Governments
Dominic Polimeni, Vice Mayor, City of San Gabriel

Carlos Porras, Communities for a Better Environment
Julie Puentes, Orange County Business Council
Mark Rosen, Councilmember, City of Garden Grove
Ty Schuiling, San Bernardino Associated Governments
John Seinfeld, California Institute of Technology
Lynn Terry, California Air Resources Board
Michael Wang, Western States Petroleum Association

STMPR ADVISORY GROUP MEMBERS PRESENT
Carol Bohnenkamp, U.S. Environmental Protection Agency
Shep Burton, Consultant
Rob Farber, Southern California Edison

STMPR ADVISORY GROUP MEMBERS NOT PRESENT:
Bill Dennison, Small Business Alliance/Dennison & Associates
Alan Dunker, General Motors
Fereidun Feizollahi, California Air Resource Board
Jane Hall, California State University, Fullerton Department of Economics
Daniel Hays, University of Southern California School of Medicine
Steve Levy, Center for Continuing Study of the California Economy
Fred Lurmann, Sonoma Technology, Inc.
John DaMassa, California Air Resources Board
Paul Ong, UCLA School of Public Policy & Social Research
Karen Polenske, MIT Department of Urban Studies & Planning
Morteza Rahmatian, California State University, Fullerton Department of Economics
Erin Sheehy, Environmental Compliance Solutions
George Treyz, Regional Economic Models, Inc.
Thomas Tyson, G.E. Energy & Environmental Research
Michael Wang, Western States Petroleum Association
Bruce DeVine, Southern California Association of Governments

OTHERS PRESENT:
John Billheimer, Enviro-Reality
Rene Bradt, City of Los Angeles
Harvey Eder, Public Solar Power Coalition
Thomas Jelenic, Port of Long Beach
Eric Lamar, OCBC/AQC
Howard Levin, Sempra Energy
Cynthia Marvin, California Air Resources Board
Clayton Miller, Construction Industry Air Quality Coalition
Ralph Morris, Environ
Rhonda Reyes, Assistant to Board Member Verdugo-Peralta
Michael Schulz, U.S. Environmental Protection Agency

AQMD STAFF:
Sam Atwood, Senior Public Information Specialist
Barbara Baird, District Counsel
Elaine Chang, Deputy Executive Officer
Joe Cassmassi, Senior Meteorologist
Ed Eckerle, Program Supervisor
Frances Keeler, Senior Deputy District Counsel
Michael Krause, Air Quality Specialist
Julia Lester, Program Supervisor
Steve Smith, Program Supervisor
Laki Tisopulos, Assistant Deputy Executive Officer
Jonathan Nadler, Air Quality Specialist
Zorik Pirveysian, Planning & Rules Manager
Greg Ushijima, Assistant Air Quality Engineer